response: "Yes, you've always been there for me! *Not for your soldiers. I rate an officer "outstanding" only if he is loyal in every respect. A loyal leader doesn't just serve his superiors; he serves his subordinates as well.*

"Are you making sure your soldiers get what they need? Food? Medical care? Good equipment? The best training possible so they won't needlessly become casualties in combat? That's what your superiors want. Take care of your soldiers, not just when the boss is around but all the time. Do you think the boss has to be there to know how you're doing? Take care of your men, captain. Look at what they do, and look at what they get for it.

"And that's not your only problem. You're not a team player; you always have to try to be the star! Now don't get me wrong. We need stars. But don't glorify yourself at the expense of the others on your team. Let them take the credit due them. After all, they're your buddies—leaders, just like you."

We should ask ourselves whether we reward the right people or the right traits. Do we reward long work hours instead of efficiency? Do we appreciate it when our leaders insist on modest, economical products, or do we prefer to see our budgets wasted on window dressing that makes their products look more attractive? Are we more impressed by people who talk about their accomplishments, or by those who let their work speak for itself? Do we reward quantity or quality? Effusiveness or efficiency? Exhibition or industry?

Every human being, regardless of his intellectual capacity, is motivated by the possible consequences of his actions. He does his work best when he expects to be rewarded for it in some fashion. If every leader, no matter what his rank, can find a way to motivate each of his subordinates, he can significantly increase productivity.

Motivating through rewards is a part of leadership, and rewards need not be written. Rewarding people while a project is under way often produces better results than waiting until the project is completed. Similarly, giving a soldier free time is often a better or fairer reward than a medal. Simply giving a subordinate a "Well done!" may also be appropriate.

What a leader does or does not do also communicates something to his subordinates. If he ignores the apparent laziness of a few soldiers while making his way through a training area, he is rewarding negative behavior as much as if he overlooks deficiencies during a formal inspection.Similarly, if he fails to reward a subordinate's good behavior, he diminishes the value of that behavior in the eyes of the subordinate, and also diminishes the likelihood that the behavior will continue.

The next time we are tempted to reward someone, let's stop and think: Are we about to reward appearance or substance? We might even ask whether we may have shared in creating officers such as the captain in the example. Could it be that this captain started out on the right track, only to notice that those who sought their own reward were the ones who got it?

Many officers—guided by the professional, societal, or moral definitions of loyalty—live their brand of loyalty to the letter, whether they are properly rewarded or not. They focus on their respective unit missions. They know what *moderation* and *balance* mean. They are tactful. They *work* instead of talking about work. And no matter how successful they may be, they do not become arrogant, lest they lose the proper focus.

Let's take a good look at our units and soldiers, then ask ourselves again: Whom do we really reward? The answer should reveal the traits we value most in our subordinates.

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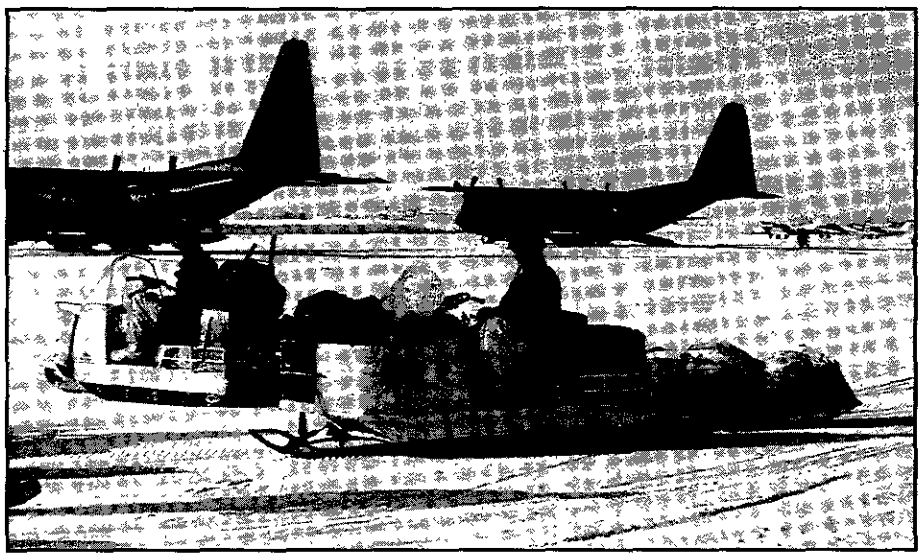
Tactical Use of "Snowmachines"

CAPTAIN KEITH W. RICHARD

When "snowmachines" were introduced in Alaska, they changed a way of living that was centuries old. (In Alaska, all "snowmobiles" are called "snowmachines," because the former term does not translate as easily from the native languages.) In remote villages throughout the state, these vehicles have assumed roles formerly filled by dog teams. While dog teams are still a routine method of transportation from village to village, snowmachines offer definite advantages, allowing movement that is free of the logistics required to operate a team of dogs.

Some U.S. Army elements in northern regions have adapted snowmachines to military uses. These machines are versatile and easy to maintain, and they offer commanders great flexibility in conducting reconnaissance and counter-reconnaissance.

My initial exposure to the tactical use of snowmachines was in my first assignment to the now-deactivated 172d Infantry Brigade. Under the modified tables of organization and equipment (MTOEs), each platoon in the battalion had at least two of them. After I left active duty and joined the Alaska Army National Guard, I found that all the scout battalions of the 297th Infantry were equipped with them.



Scouts of the Alaska Army National Guard wait at airfield for an air-land reconnaissance mission. The single-ski snowmachine can pull several ahkio sleds loaded with weapons, ammunition, or essential mission equipment.

Two basic models of snowmachines are used in military operations. The larger of the two is a wide-track, single-ski workhorse that can pull heavy loads. Its top speed is only about 35 miles per hour. It weighs 750 pounds and is usually fitted with a steel brush guard to protect the engine cowling. The smaller model is a twin-ski machine that can also pull a fair-sized load but is designed mainly for high speeds. It handles well at speeds of up to 75 miles per hour and weighs only 550 pounds.

These snowmachines can carry their own support packages, because each has an attached sled called an ahkio (AH-kee-yo). An ahkio is a six-foot long, three-runner fiberglass sled that has a canvas skirt to lash over the load. It will carry a tent, a Yukon stove, a camouflage net, several five-gallon cans of fuel, several cases of MREs (meals, ready to eat), ammunition, and mission-specific equipment.

A snowmachine team pulling an ahkio can be completely self-sufficient for up to 10 days. Depending on the mission, the sled can be loaded with an 81mm mortar and ammunition, Stinger air defense missiles, chemical and radiation survey equipment, ground surveillance radar, demolitions, or communications equipment.

The smaller snowmachine can pull two or three loaded ahkios, and I have seen the larger model pull 13, daisy-chained together. I have also used an ahkio, loaded or empty, for troop transport. The troops simply straddle the load as they would a horse. This allows a platoon leader to move a full infantry squad and its equipment to new positions miles away in a matter of minutes.

There are several ways to transport snowmachines to an area of operations. Both models can be packaged for container delivery system (CDS) aerial delivery by C-130 aircraft. With this method, the user must fuel the machine once it hits the drop zone. A preferred method is to air-land the machines by C-130. This allows a unit to deliver up to six machines that are already fueled and ready to drive off the ramp.

A UH-1 helicopter can carry the larger model as a sling load. This method requires standard sling materials and is better-suited to short-range trips. The lighter machine fits inside the UH-1, provided the skis are removed. This allows the helicopter to fly with its doors closed (which is highly recommended, especially for long-range flights). The ski removal takes about 10 minutes.

The northern area of operations involves tremendous distances, and aerial reconnaissance over distances of 250 miles or more may not provide all of the information commanders need. The aerial transport of a snowmachine and its scout team to a named area of interest gives a commander many advantages. He can have observers on the ground far forward to provide him with accurate intelligence. The team is totally self-sufficient for long periods and is not a resupply concern.

Some Alaska Army National Guard units are equipped with M113A1s, which are also useful in transporting snowmachines. An M113 can carry two machines on top, along with their teams' equipment. Once the teams have been deployed, the M113 can be used as a base of operations or communication between the teams and their higher headquarters.

These teams are highly mobile and extremely difficult to detect. They can conduct their missions from widely separated vantage points. The white-painted snowmachines are easy to conceal, and they are reliable under the most extreme conditions.

When a machine is not to be used for several hours, the driver removes the spark plugs and the drive belt (a five-minute operation) and keeps them warm. He puts the spark plugs in his pockets and the drive belt in his sleeping bag when he sleeps. He is then assured of having a machine that will start later and run at temperatures as low as 55 degrees below zero.

Communications are especially

important, of course, for teams that have been inserted hundreds of miles away. For short-range missions, a driver can carry a standard FM radio on his back. Our scout teams also train with AM radios, which give them increased range. The teams need a basic understanding of building field expedient antennas and tuning AM radios. These radios allow our battalion headquarters in Anchorage to speak to a company 350 miles away in Fairbanks.

One technique for maintaining contact with the teams is to have scheduled report times several times a day and to require continuous radio communication only when enemy contact is expected. Satellite communication is another option. We have conducted reconnaissance and counterreconnaissance operations for eight continuous days with teams as far away as Nome speaking to our main command post in Anchorage. *(For detailed discussions of the challenges of operating in cold environments, see the two-part "Cold Regions: Environmental Influences on Military Operations," by Brigadier General Peter W. Clegg and Colonel Robert H. Clegg, INFANTRY, July-August and September-October 1992.)*

The tactical use of snowmachines in northern operations allows a commander great flexibility. He can insert any number of teams on a wide variety of combat or combat support missions. He can keep reconnaissance elements on the ground and communicate with them over hundreds of miles. The reconnaissance and security they provide can be invaluable.

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Ultralight Aircraft
A New Tool for Airmobility

MAJOR JAMES P. STANTON

In 1784, Benjamin Franklin, then U.S. Ambassador to France, witnessed the fascinating aerial spectacle of men riding in air balloons. Thrilled and farsighted, he asked: *Where is the prince who can afford so to cover his country with troops for its defense. . .that 10,000 men, descending from the clouds, might not. . . do an infinite amount of mischief before a force could be brought to repel them?* Thus, Franklin astutely envisioned the potential for airmobility.

This concept was developed in the waning days of World War I, exercised with gliders and paratroops in World War II, and refined during modern wars of insurgency with the effective employment of the helicopter. In our highly technological world of today, we now have the deceptively simple, seemingly anachronistic, and ultimately appropriate aircraft for airmobility—ultralight air machines made of aluminum and Dacron.

I believe that the U.S. Army's continuing requirement for airmobile troop insertion on the battlefield is the most significant role for properly configured ultralight aircraft.

Although the helicopter has proved effective in battle, its use for infantry mobility is not without limitations. In Vietnam, for example, the relative vulnerability of the helicopter's airframe required complete air superiority in an operating area. Few landing zones were available, and suppressing enemy activity near those zones seriously drained a unit's resources. As current doctrine emphasizes, the use of helicopters for airmobile insertions is never routine—conditions must be right and commanders must be responsible for "meticulous planning" to hit "exposed or assailable flanks" by using "concealed routes." In addition, helicopters are extremely costly to purchase, operate, and maintain; their crews require extensive training; and their cargos of men and equipment are priceless.

Ultralight aircraft could effectively transport infantrymen to the modern battlefield while avoiding some of these limitations. They could perform admirably at an extremely low cost while providing for combat survivability. The ultralight certainly has a place above the modern battlefield, and its capabilities fit the requirements of infantry movement.

The development of lightweight, flexible airfoils in the 1950s gave rise to the popular sport of hang-gliding in the 1970s. The airframes that were developed were safe and efficient. Then, innovative hang-glider enthusiasts—tired of waiting for the perfect wind—began to experiment with propulsion